

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) A sealing material for a semiconductor device, which is a sealing material ~~containing~~ comprising a fluororubber as a rubber component ~~and is characterized in that, wherein:~~ the fluororubber inevitably ~~contains~~ comprises a cured product of a vinylidene fluoride/ hexafluoropropylene/ tetrafluoroethylene elastic copolymer; and copolymerization ratios of respective monomers in the vinylidene fluoride/ hexafluoropropylene/ tetrafluoroethylene elastic copolymer are such that: a content of vinylidene fluoride is in the range of from 25 to 70 mol %; a content of hexafluoropropylene is in the range of from 15 to 60 mol %; a content of tetrafluoroethylene is in the range of from 15 to 60 mol %; and a fluorine content in the vinylidene fluoride/ hexafluoropropylene/ tetrafluoroethylene elastic copolymer is in the range of from 71.5 to 75 mass %.

2. (currently amended) The sealing material for a semiconductor device according to claim 1, wherein curing of the vinylidene fluoride/ hexafluoropropylene/ tetrafluoroethylene elastic copolymer is performed by irradiation with ionizing radiation.

3. (currently amended) The sealing material for a semiconductor device according to claim 1 or 2, wherein a fluorine content of the vinylidene fluoride/ hexafluoropropylene/ tetrafluoroethylene elastic copolymer is in the range of from 72 to 74.5 mass %.

4. (currently amended) The sealing material for a semiconductor device according to claim 2 ~~or 3~~, wherein an irradiation dose of the ionizing radiation is in the range of from 10 to 500 kGy.

5. (currently amended) A sealing material for a semiconductor device, which is obtained by crosslinking, with ionizing radiation, a fluororubber preform ~~containing~~ comprising:

i) a fluororubber component (a) comprising a vinylidene fluoride/ hexafluoropropylene elastic copolymer and/or a vinylidene fluoride/ hexafluoropropylene/ tetrafluoroethylene elastic copolymer; and

ii) a non-elastic fluoro-resin component (b) comprising a vinylidene fluoride (co)polymer in composition of the fluoro-resin component (b) of 1 to 50 parts by mass relative to 100 parts by mass of the fluororubber component (a).

6. (currently amended) The sealing material for a semiconductor device according to claim 5, wherein a copolymerization ratio of respective monomers in the vinylidene fluoride/ hexafluoropropylene elastic copolymer is vinylidene fluoride/ hexafluoropropylene = (50 to 95)/(5 to 50) (in mol %).

7. (currently amended) The sealing material for a semiconductor device according to claim 5 or 6, wherein a copolymerization ratio of respective monomers in the vinylidene fluoride/ hexafluoropropylene/ tetrafluoroethylene elastic copolymer is vinylidene fluoride/ hexafluoropropylene/ tetrafluoroethylene = (20 to 80)/(10 to 70)/(10 to 70) (in mol %).

8. (currently amended) The sealing material for a semiconductor device according to ~~any of claims 5 to 7~~ claim 5 or 6, wherein a fluorine content of the fluororubber component (a) is in the range of from 65 to 75 mass %.

9. (currently amended) The sealing material for a semiconductor device according to ~~any of claims 5 to 8~~ claim 5 or 6, wherein a ratio of the fluororubber component (a) and the fluororesin component (b) is 5 to 20 parts by mass of the fluororesin component (b) relative to 100 parts by mass of the fluororubber component (a).

10. (currently amended) The sealing material for a semiconductor device according to ~~any of claims 5 to 9~~ claim 5 or 6, wherein an irradiation dose of the ionizing radiation is in the range of from 10 to 500 kGy.

11. (currently amended) A manufacturing method for a sealing material for a semiconductor device, comprising the steps of:

~~in which 100 parts by mass of a fluororubber component (a) comprising a vinylidene fluoride/ hexafluoropropylene elastic copolymer and/or a vinylidene fluoride/ hexafluoropropylene/ tetrafluoroethylene elastic copolymer and 1 to 50 parts by mass of a non-elastic fluororesin component (b) comprising a vinylidene fluoride (co)polymer are mixed at a temperature of a melting point of the fluororesin component (b) or higher, thereafter the mixture is preformed, and the obtained preform is irradiated with ionizing radiation~~

i) mixing a fluororubber component (a) with a non-elastic fluororesin component (b) to obtain a mixture,

wherein the fluororubber component (a) comprises a vinylidene fluoride/ hexafluoropropylene elastic copolymer and/or a vinylidene fluoride/ hexafluoropropylene/ tetrafluoroethylene elastic copolymer, wherein the non-elastic fluororesin component (b) comprises a vinylidene fluoride (co)polymer, wherein 100 parts by mass of the fluororubber component (a) is mixed with 1 to 50 parts by mass of the non-elastic fluororesin component (b) at a temperature of a melting point of the fluororesin component (b) or higher;

- ii) preforming the mixture to obtain a preform; and
- iii) irradiating the preform with ionizing radiation.